

IN THE CLAIMS

Please cancel claims 41, 43-45, and 50 without prejudice.

Please amend claims 39 and 51-55 as follows:

39. (Amended) An electronic device for performing biological operations comprising:

a support substrate,

an array of microlocations disposed on the substrate, the array being formed within a region,

a first collection electrode disposed on the substrate adjacent the array,

a second collection electrode disposed on the substrate, adjacent the array, and at least in part on the opposite side of the region; and

a flow cell, the flow cell adapted to be supported on the substrate and to define a footprint of the flow cell wherein the area of the first collection electrode and second collection electrode in proportion to the footprint of the flow cell is at least 40%.

51. (Amended) The electronic device for performing active biological operations of claim 39 wherein the area of the first collection electrode and second collection electrodes in proportion to the footprint of the flow cell is at least 50%.

52. (Amended) The electronic device for performing active biological operations of claim 39 wherein the area of the first collection electrode and second collection electrodes in proportion to the footprint of the flow cell is at least 60%.

53. (Amended) The electronic device for performing active biological operations of claim 39 wherein the flow cell includes an inlet.

54. (Amended) The electronic device for performing active biological operations of claim 39 wherein the flow cell includes an outlet.

55. (Amended) A method for analysis of a biological sample utilizing an electronic device for performing active biological operations, the device including a support substrate, an array of microlocations disposed on the substrate, the array being formed within a region, a first collection electrode disposed on the substrate adjacent the array, and a second collection electrode disposed on the substrate, adjacent the array, and at least in part on the opposite side of the region, the method comprising the steps of:

providing the sample to the device,

placing the first collection electrode attractive for desired charged biological materials, thereby concentrating charged biological materials on the collection electrode,

placing the second collection electrode attractive for the desired charged biological materials, relative to the first collection electrode, thereby transporting said charged biological materials from the first collection electrode towards the second collection electrode, and over at least a portion of said array of microlocations disposed on the

substrate, whereby interaction between the charged biological materials and the array occurs.

Please add the following new claims:

--115. (New) The method for analysis of a biological sample according to claim 55 further comprising the step of applying an AC field between the first and second collection electrodes so as to hold the charged biological materials over the array.

116. (New) The method for analysis of a biological sample according to claim 55, wherein when the second collection electrode is placed attractive, the first collection electrode is placed repulsive.

117. (New) The method for analysis of a biological sample according to claim 55 further comprising the additional steps of placing the second collection electrode repulsive and placing the first collection electrode attractive, thereby concentrating charged biological species on the first collection electrode.--